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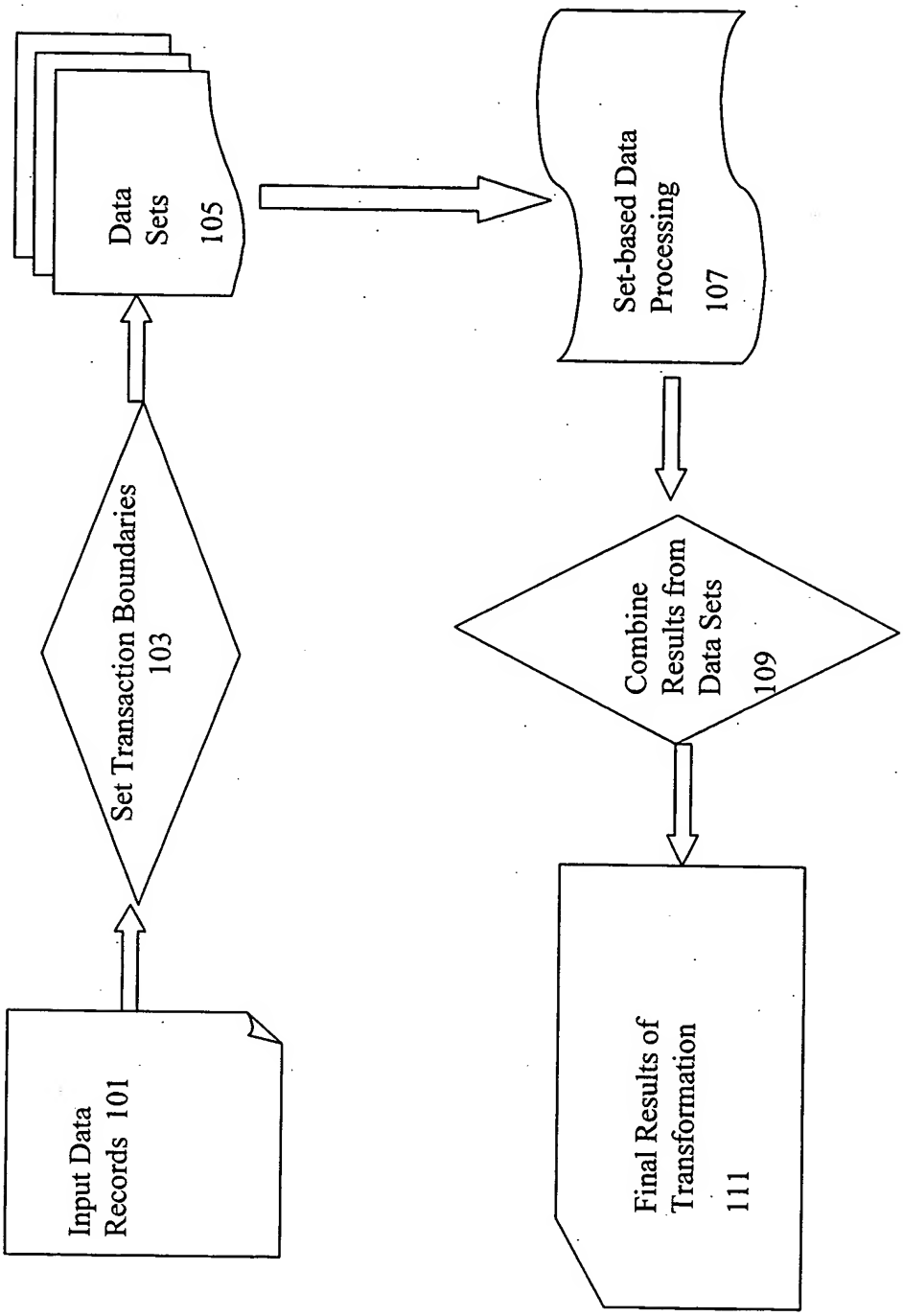

Input Data Records 101
Set Transaction Boundaries 103
Data Sets 105
Set-based Data Processing 107
Combine Results from Data Sets 109
Final Results of Transformation 111

Fig. 1

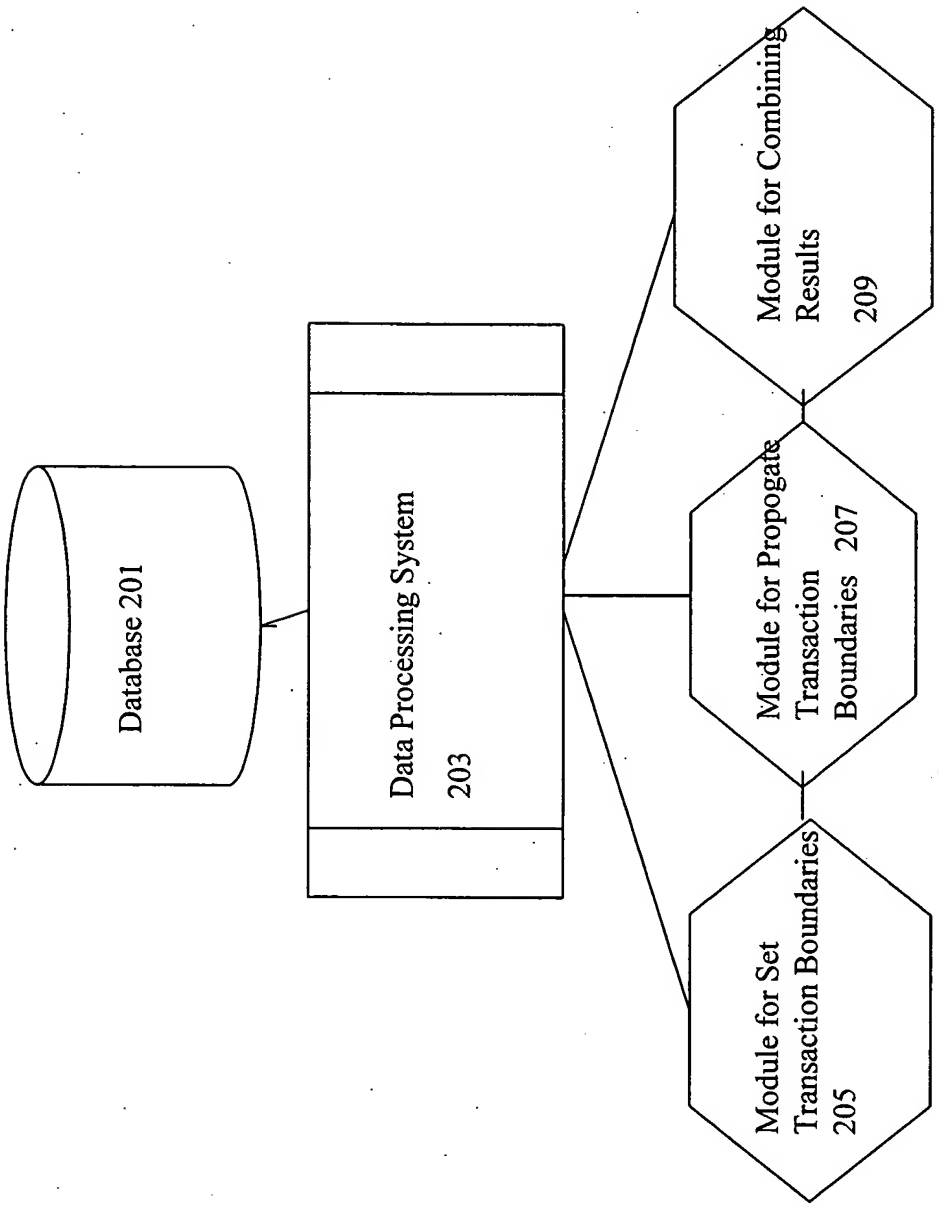

Database 201
Data Processing System
203
Module for Combining Results
209
Module for Propogate Transaction Boundaries 207
Module for Set Transaction Boundaries
205

Fig. 2

Fig. 3

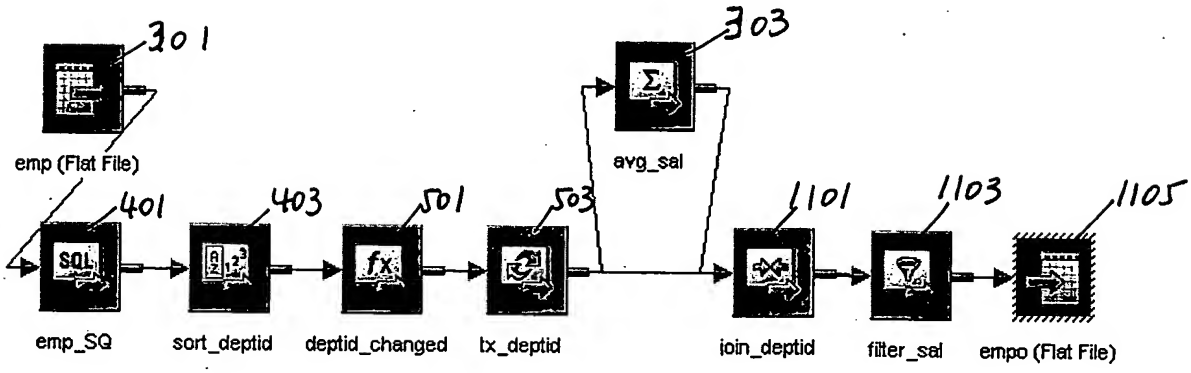

301
303
emp (Flat File)
avg_sal
401
403
501
503
1101
1103
1105
emp_SQ
sort_deptid
deptid_changed
tx_deptid
join_deptid
filter_sal
empo (Flat File)

Fig. 4

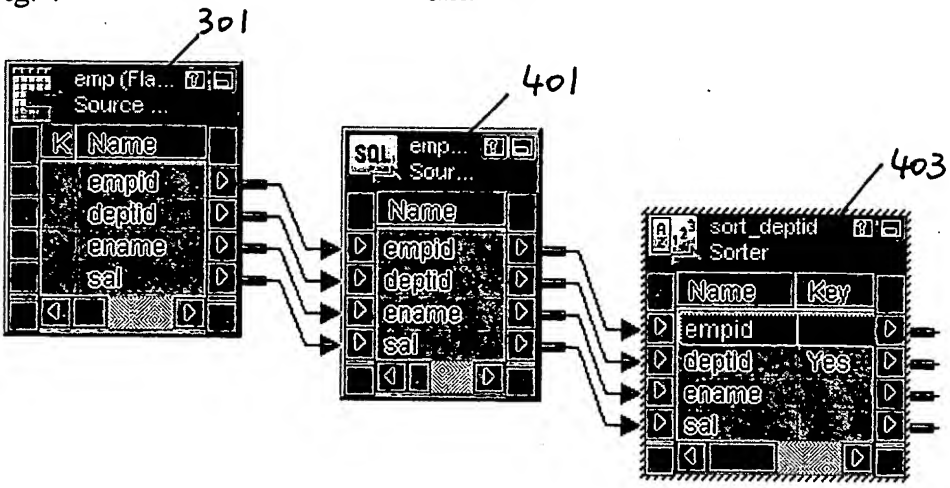

301
emp (Fla...
Source ...
Name
empid
deptid
ename
sal
401
SQL
emp...
Sour...
Name
empid
deptid
ename
sal
403
sort_deptid
Sorter
Name
Key
empid
deptid
Yes
ename
sal

Fig. 5

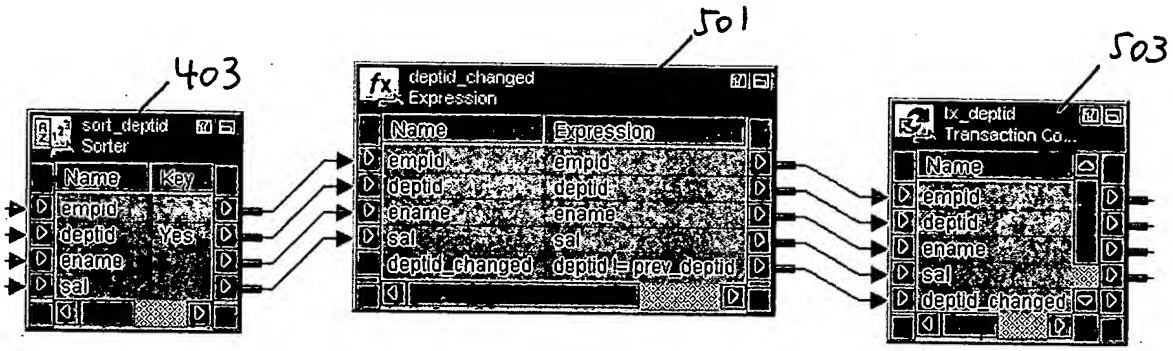

403
501
503
sort_deptid
Sorter
Name
Key
empid
deptid
Yes
ename
sal
deptid_changed
Expression
Name
Expression
empid
empid
deptid
deptid
ename
ename
sal
sal
deptid_changed
deptid != prev_deptid
tx_deptid
Transaction Co...
Name
empid
deptid
ename
sal
deptid_changed

Fig. 6

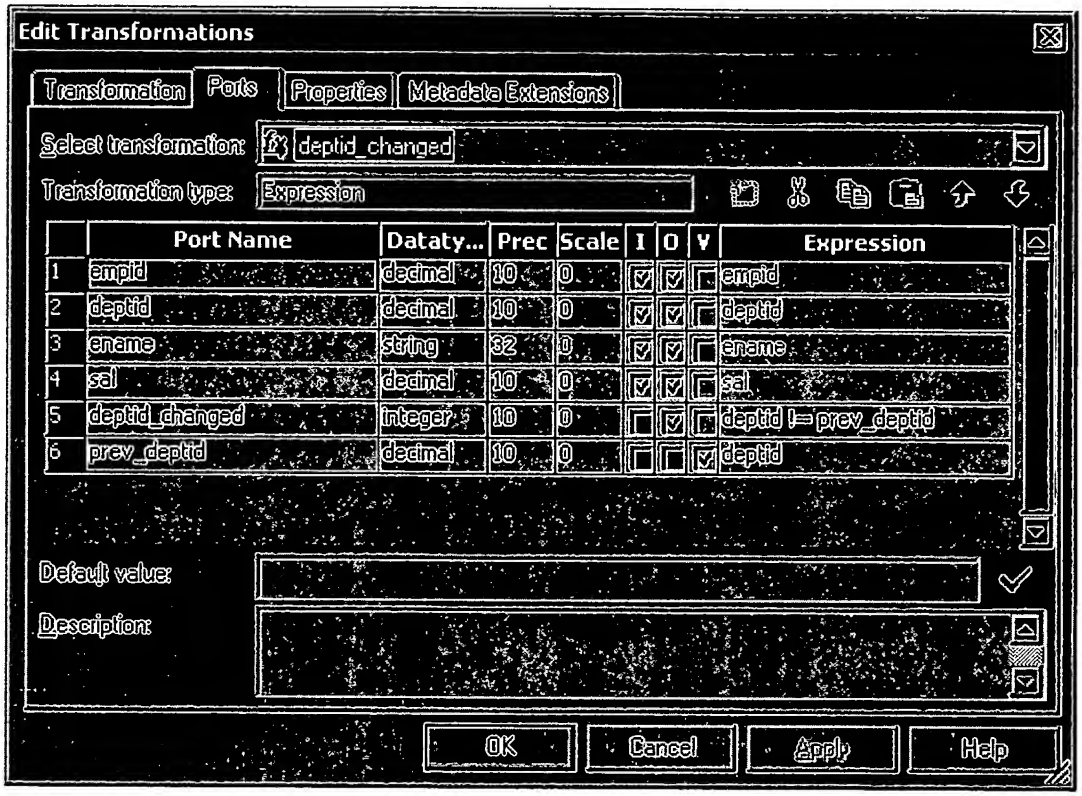

Edit Transformations
Transformation
Ports
Properties
Metadata Extensions
Select transformation:
deptid_changed
Transformation type:
Expression
Port Name
Dataty...
Prec
Scale
I
O
V
Expression
1 empid decimal 10 0 empid
2 deptid decimal 10 0 deptid
3 ename string 32 0 ename
4 sal decimal 10 0 sal
5 deptid_changed integer 10 0 deptid != prev_deptid
6 prev_deptid decimal 10 0 deptid
Default value:
Description:
OK
Cancel
Apply
Help

Fig. 7

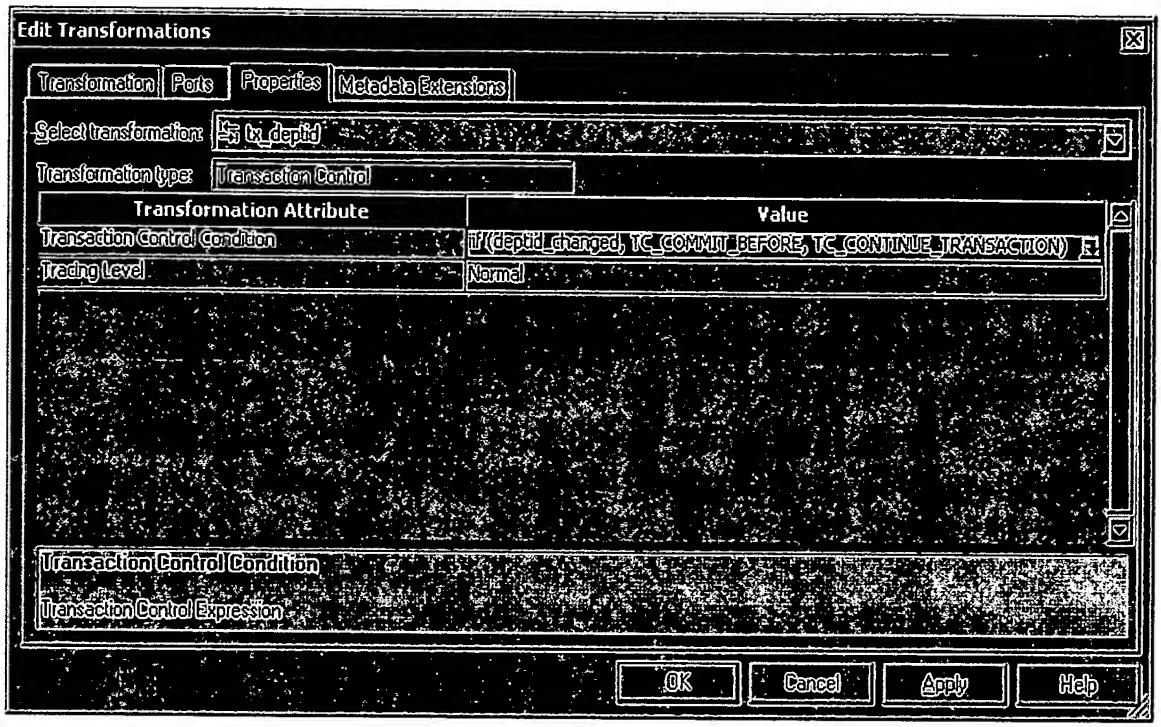

Edit Transformations
Transformation
Ports
Properties
Metadata Extensions
Select transformation:
tx_deptid
Transformation type:
Transaction Control
Transformation Attribute
Value
Transaction Control Condition
IF(deptid_changed, TC_COMMIT_BEFORE, TC_CONTINUE_TRANSACTION)
Tracing Level
Normal
Transaction Control Condition
Transaction Control Expression
OK
Cancel
Apply
Help

Fig. 8

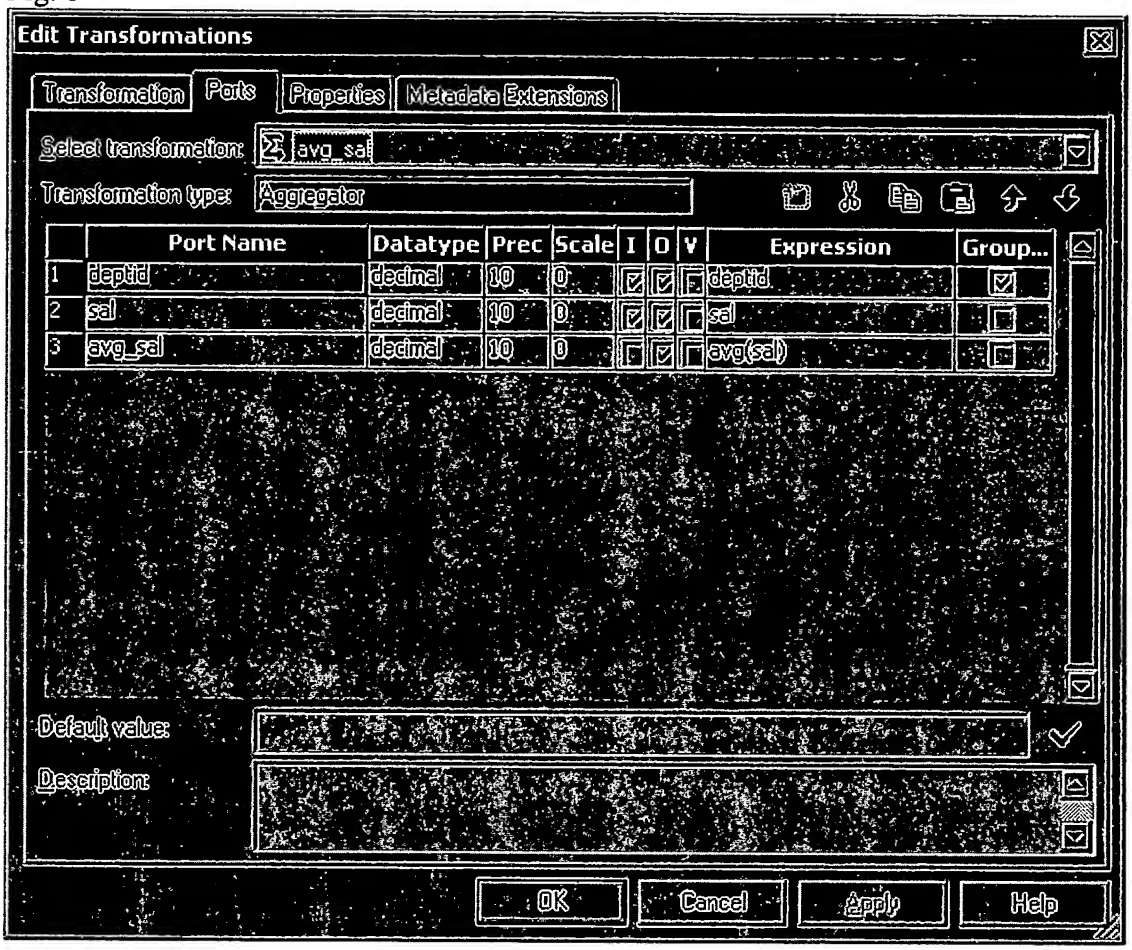

Edit Transformations
Transformation
Ports
Properties
Metadata Extensions
Select transformation:
avg_sal
Transformation type:
Aggregator
Port Name
Datatype
Prec
Scale
I
O
V
Expression
Group...
1 deptid decimal 10 0 deptid
2 sal decimal 10 0 sal
3 avg_sal decimal 10 0 avg(sal)
Default value:
Description:
OK
Cancel
Apply
Help

Fig. 9

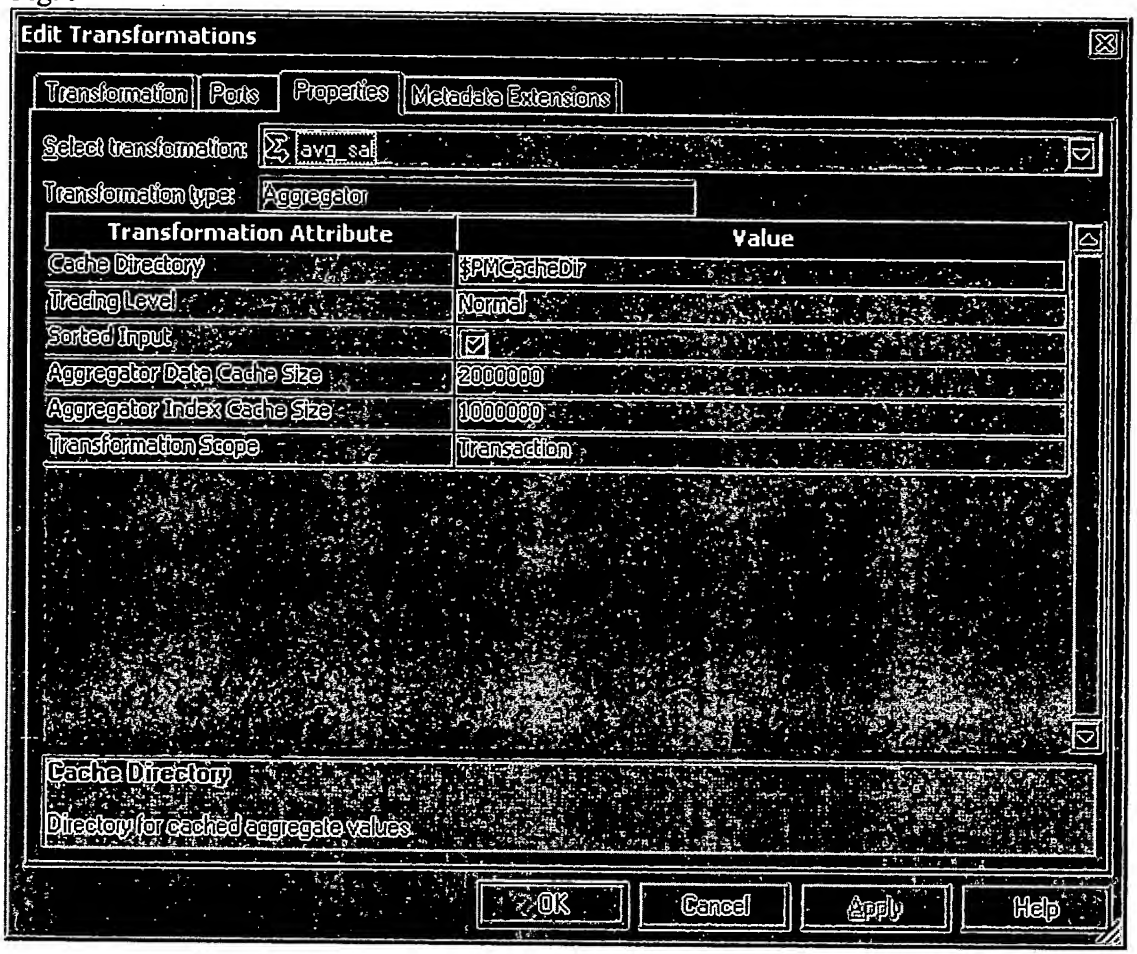

Edit Transformations
Transformation
Ports
Properties
Metadata Extensions
Select transformation:
avg_sal
Transformation type:
Aggregator
Transformation Attribute
Value
Cache Directory
$PMCacheDir
Tracing Level
Normal
Sorted Input
Aggregator Data Cache Size
2000000
Aggregator Index Cache Size
1000000
Transformation Scope
Transaction
Cache Directory
Directory for cached aggregate values.
OK
Cancel
Apply
Help

Fig. 10

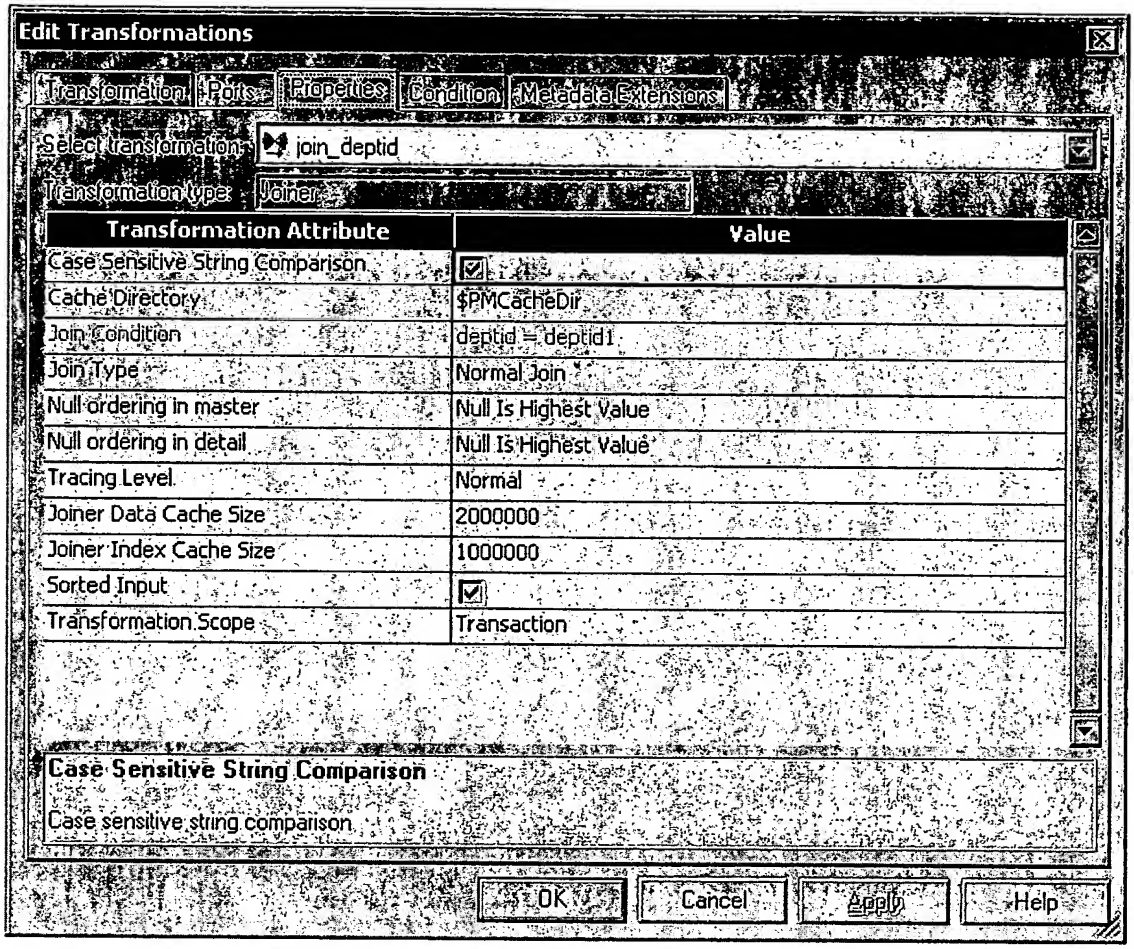

Edit Transformations
Transformation
Ports
Properties
Condition
Metadata Extensions
Select transformation:
join_deptid
Transformation type:
Joiner
Transformation Attribute
Value
Case Sensitive String Comparison
Cache Directory
$PMCacheDir
Join Condition
deptid = deptid1
Join Type
Normal Join
Null ordering in master
Null Is Highest Value
Null ordering in detail
Null Is Highest Value
Tracing Level
Normal
Joiner Data Cache Size
2000000
Joiner Index Cache Size
1000000
Sorted Input
Transformation Scope
Transaction
Case Sensitive String Comparison
Case sensitive string comparison.
OK
Cancel
Apply
Help

Fig. 11

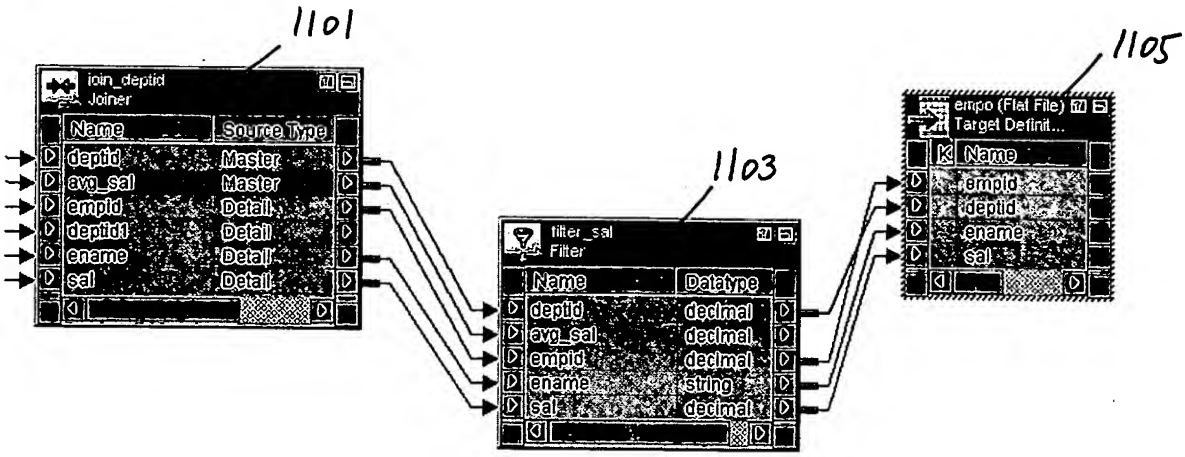

1101
join_deptid
Joiner
Name
Source Type
deptid
Master
avg_sal
Master
empid
Detail
deptid1
Detail
ename
Detail
sal
Detail
1103
filter_sal
Filter
Name
DataType
deptid
decimal
avg_sal
decimal
empid
decimal
ename
string
sal
decimal
1105
empo (Flat File)
Target Definit...
Name
empid
deptid
ename
sal

Fig. 12

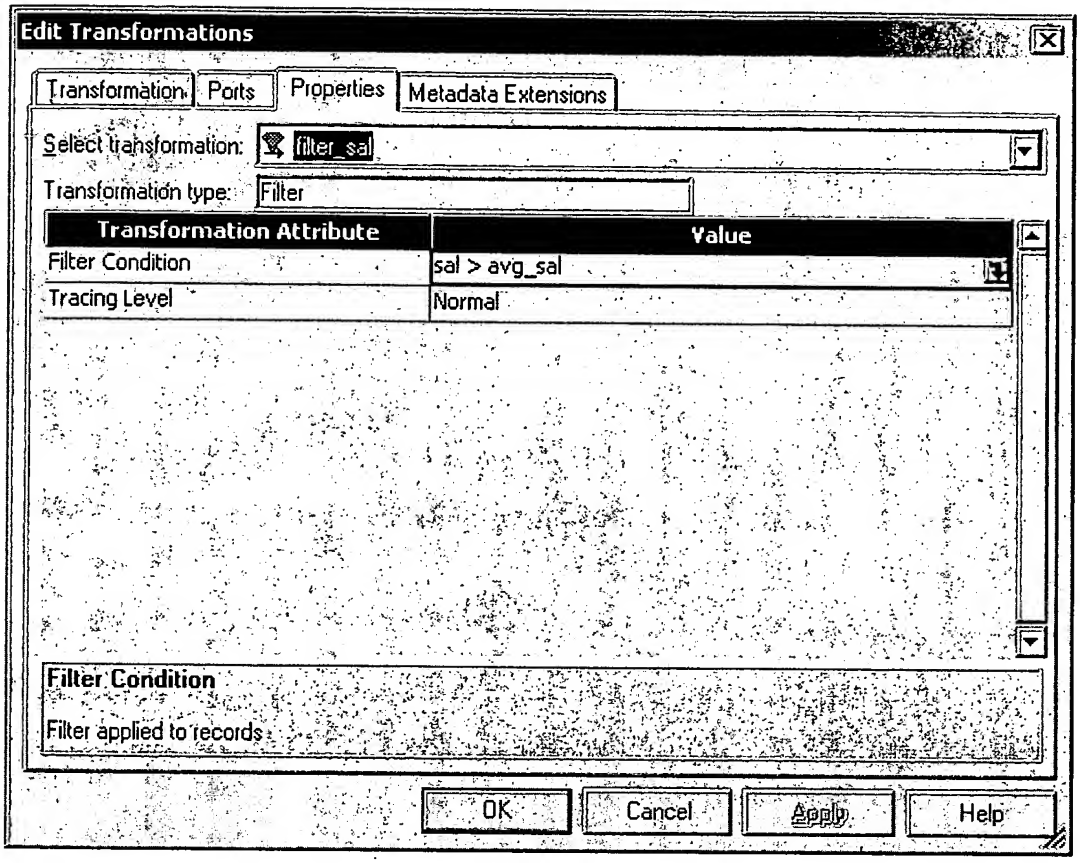

Edit Transformations
Transformation
Ports
Properties
Metadata Extensions
Select transformation:
filter_sal
Transformation type:
Filter
Transformation Attribute
Value
Filter Condition
sal > avg_sal
Tracing Level
Normal
Filter Condition
Filter applied to records
OK
Cancel
Apply
Help

Fig. 13

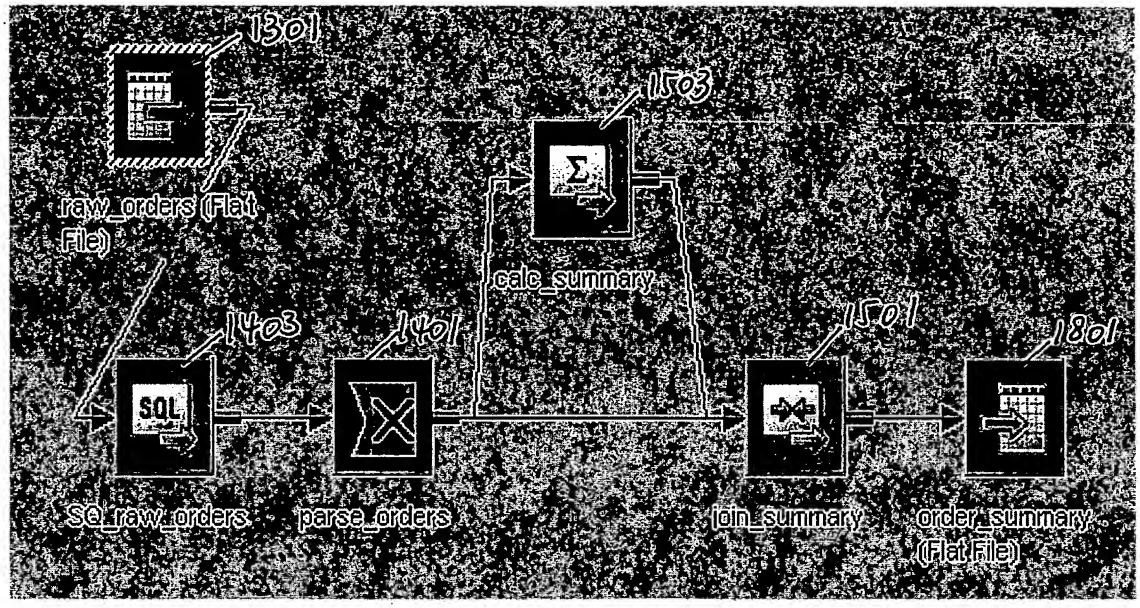

1301
raw_orders (Flat File)
1503
calc_summary
1403
1401
1501
1801
SQL
SQL_raw_orders
parse_orders
join_summary
order_summary (Flat File)

Fig. 14

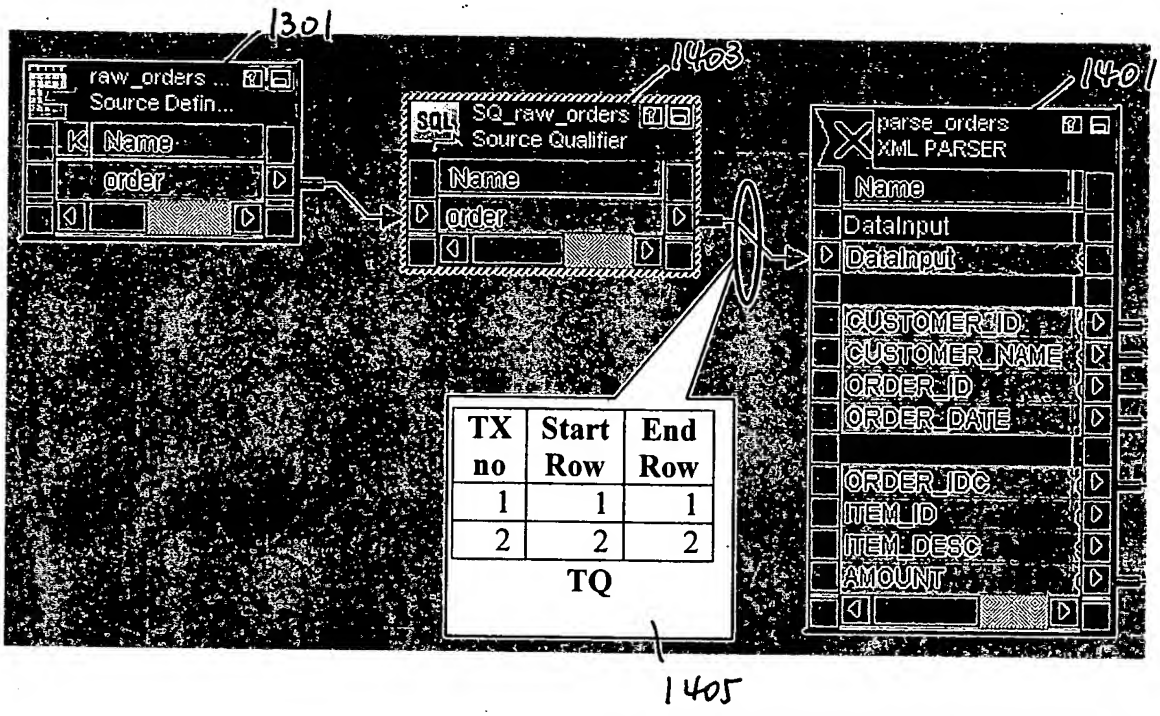

1301
raw_orders ...
Source Defin...
Name
order
1403
SQ_raw_orders
Source Qualifier
Name
order
1401
parse_orders
XML PARSER
Name
DataInput
DataInput
CUSTOMER_ID
CUSTOMER_NAME
ORDER_ID
ORDER_DATE
ORDER_IDC
ITEM_ID
ITEM_DESC
AMOUNT
TX no
Start Row
End Row
1
1
1
2
2
2
TQ
1405

Fig. 15

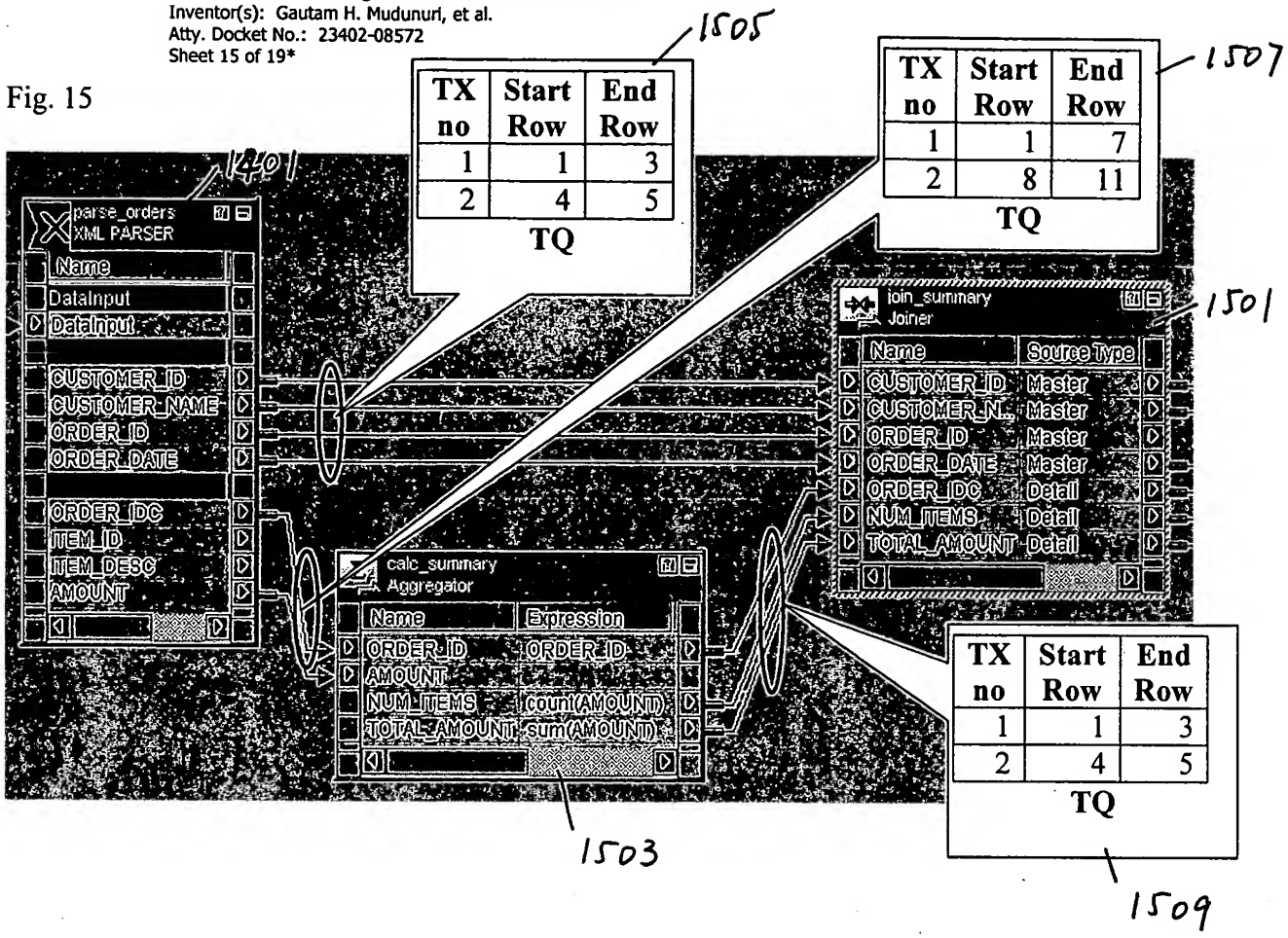

1505
TX no | Start Row | End Row
1 | 1 | 3
2 | 4 | 5
TQ
1507
TX no | Start Row | End Row
1 | 1 | 7
2 | 8 | 11
TQ
1401
parse_orders
XML PARSER
Name
DataInput
DataInput
CUSTOMER_ID
CUSTOMER_NAME
ORDER_ID
ORDER_DATE
ORDER_IDC
ITEM_ID
ITEM_DESC
AMOUNT
calc_summary
Aggregator
Name | Expression
ORDER_ID | ORDER_ID
AMOUNT
NUM_ITEMS | count(AMOUNT)
TOTAL_AMOUNT | sum(AMOUNT)
1503
join_summary
Joiner
Name | Source Type
CUSTOMER_ID | Master
CUSTOMER_N... | Master
ORDER_ID | Master
ORDER_DATE | Master
ORDER_IDC | Detail
NUM_ITEMS | Detail
TOTAL_AMOUNT | Detail
1501
TX no | Start Row | End Row
1 | 1 | 3
2 | 4 | 5
TQ
1509

Fig. 16

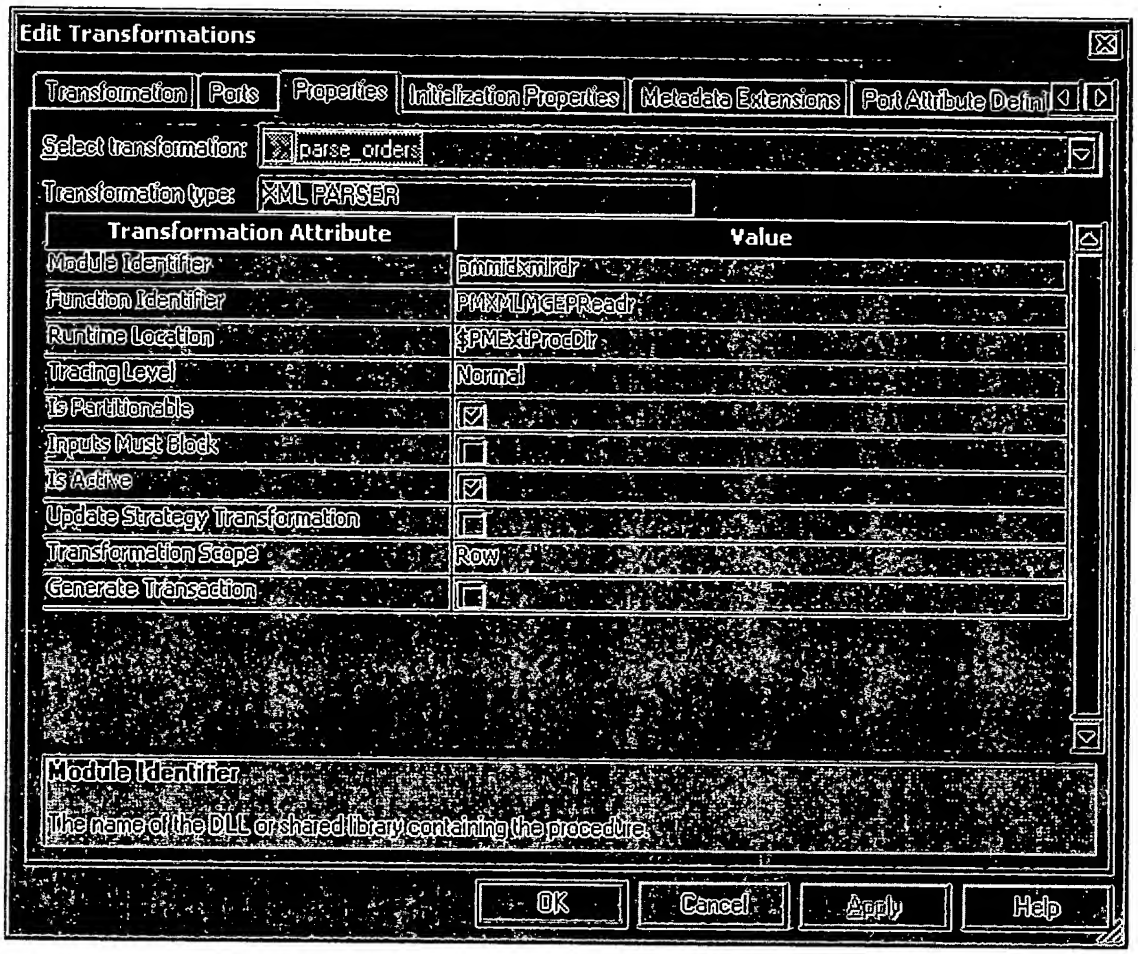

Edit Transformations
Transformation
Ports
Properties
Initialization Properties
Metadata Extensions
Port Attribute Defini
Select transformation:
parse_orders
Transformation type:
XML PARSER
Transformation Attribute
Value
Module Identifier
pmmidxmlrdr
Function Identifier
PMXMLMGEPReadr
Runtime Location
$PMExtProcDir
Tracing Level
Normal
Is Partitionable
Inputs Must Block
Is Active
Update Strategy Transformation
Transformation Scope
Row
Generate Transaction
Module Identifier
The name of the DLL or shared library containing the procedure.
OK
Cancel
Apply
Help

Fig. 17

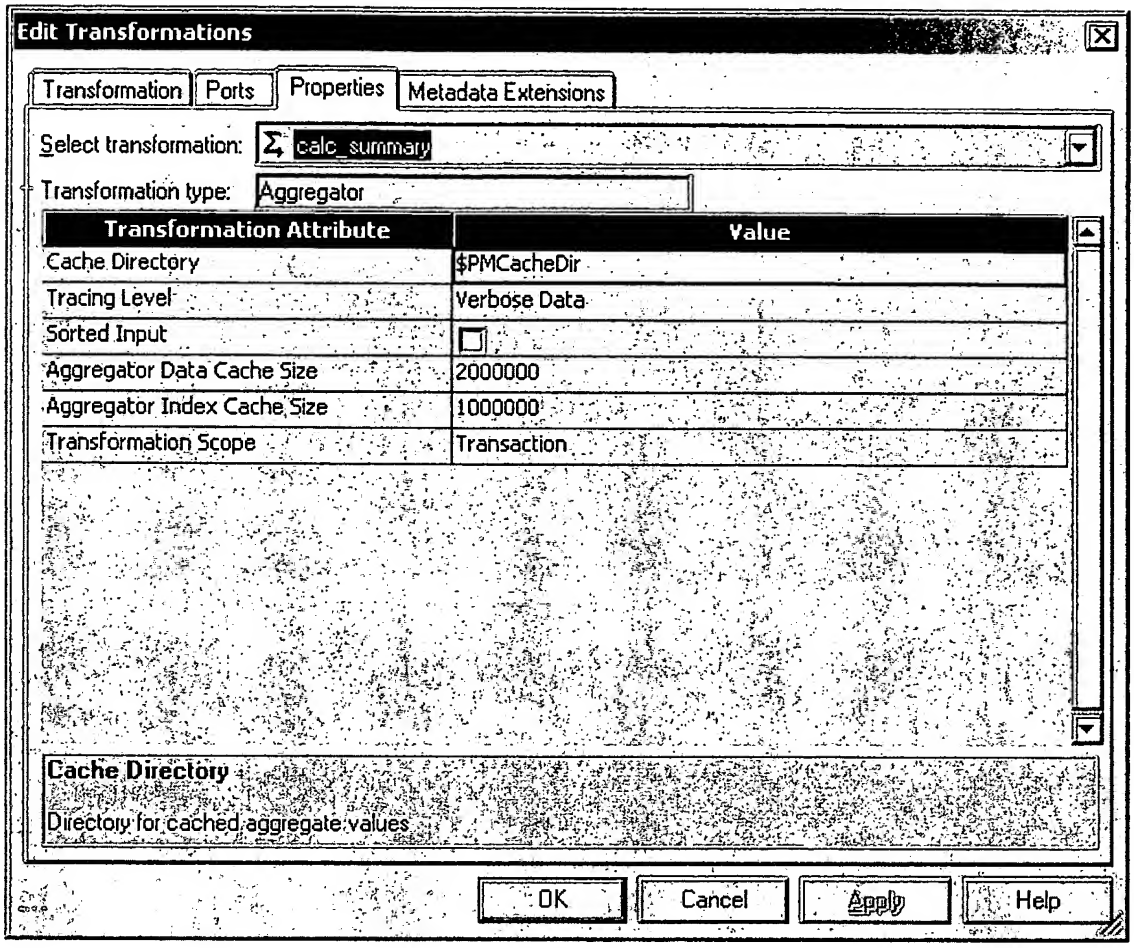
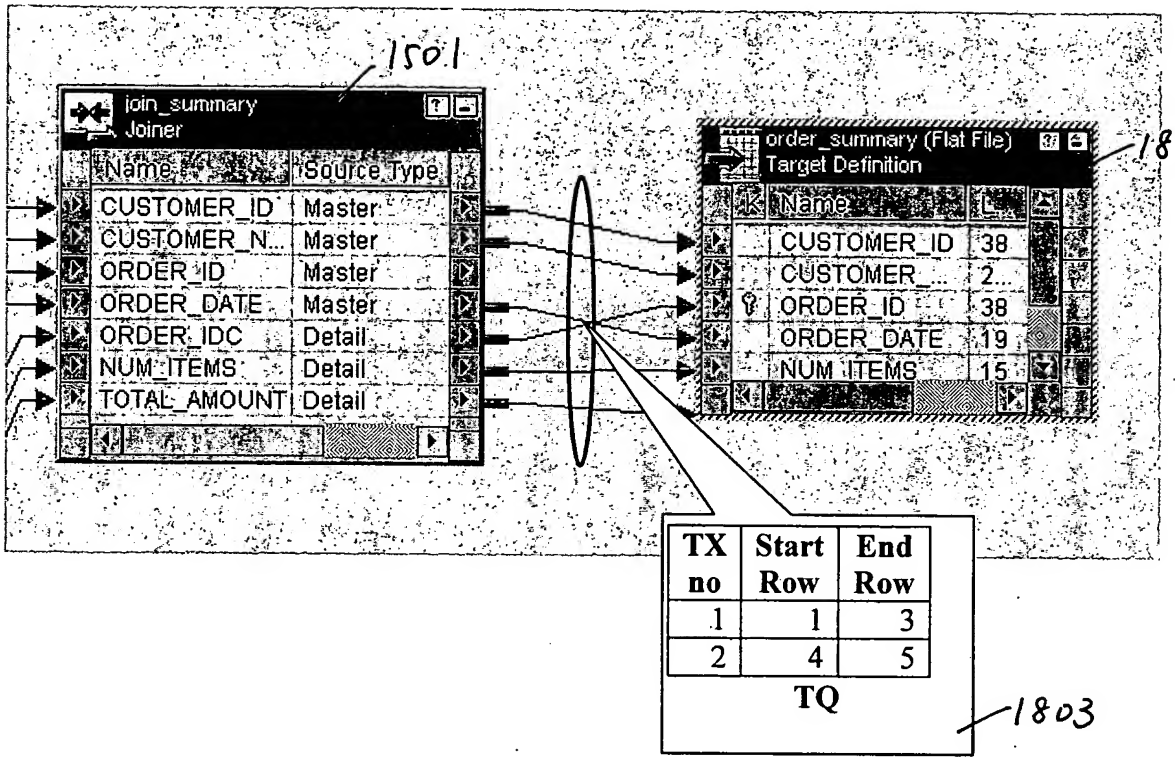

Edit Transformations
Transformation
Ports
Properties
Metadata Extensions
Select transformation:
calc_summary
Transformation type:
Aggregator
Transformation Attribute
Value
Cache Directory
$PMCacheDir
Tracing Level
Verbose Data
Sorted Input
Aggregator Data Cache Size
2000000
Aggregator Index Cache Size
1000000
Transformation Scope
Transaction
Cache Directory
Directory for cached aggregate values
OK
Cancel
Apply
Help

Fig. 18

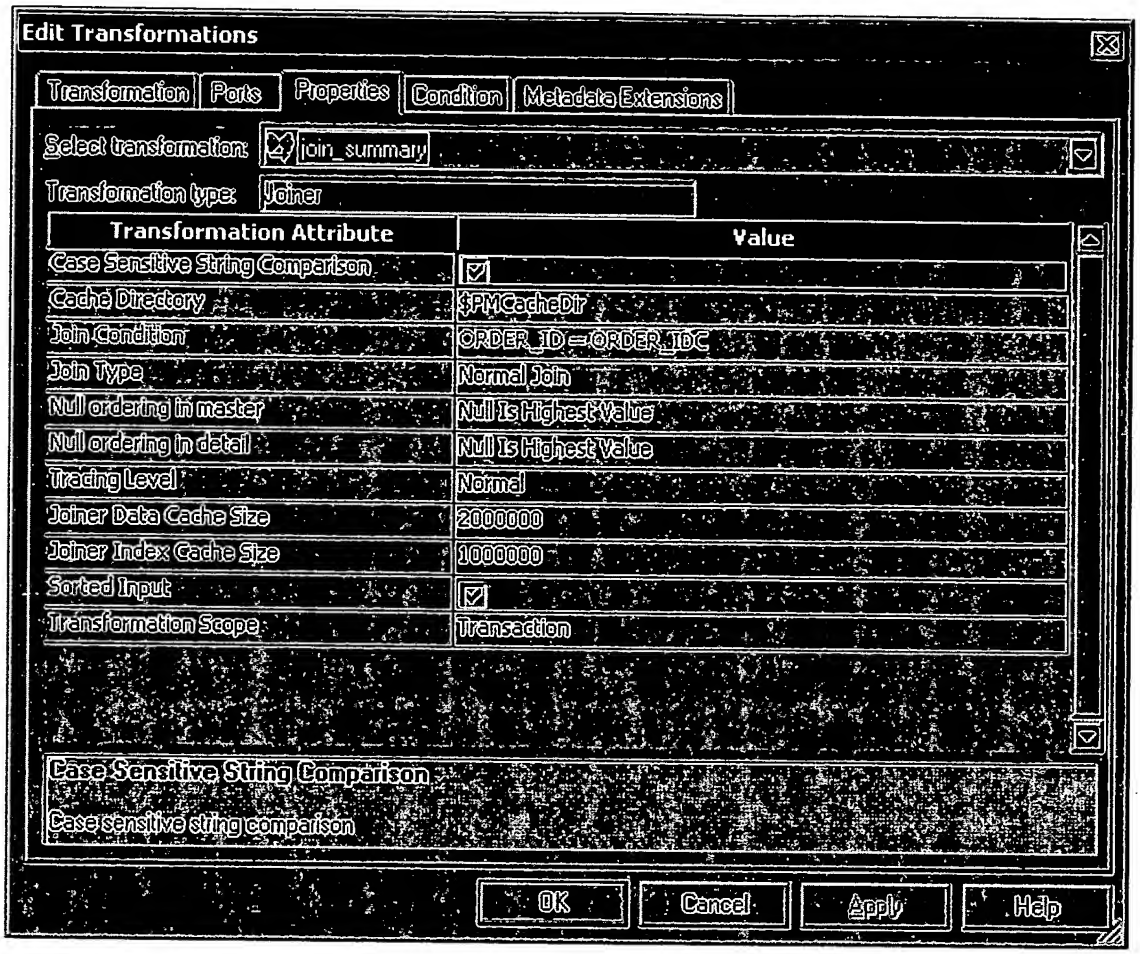


TX no	Start Row	End Row
1	1	3
2	4	5

TQ

1803

Fig. 19


Edit Transformations
Transformation
Ports
Properties
Condition
Metadata Extensions
Select transformation:
join_summary
Transformation type:
Joiner
Transformation Attribute
Value
Case Sensitive String Comparison
Cache Directory
$PMCacheDir
Join Condition
ORDER_ID = ORDER_ID1
Join Type
Normal Join
Null ordering in master
Null Is Highest Value
Null ordering in detail
Null Is Highest Value
Tracing Level
Normal
Joiner Data Cache Size
2000000
Joiner Index Cache Size
1000000
Sorted Input
Transformation Scope
Transaction
Case Sensitive String Comparison
Case sensitive string comparison
OK
Cancel
Apply
Help